

Fact Sheet



For Final Significant Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Significant Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on November 30, 2010.

Permit Number: **R30-09500007-2010**
Application Received: **April 23, 2012**
Plant Identification Number: **03-54-09500007**
Permittee: **Dominion Transmission, Inc.**
Facility Name: **Deep Valley Station**
Mailing Address: **445 West Main Street**
Clarksburg, WV 26301

Permit Action Number: *SM01* Revised: July 26, 2012

Physical Location:	Deep Valley, Taylor County, West Virginia
UTM Coordinates:	512.34 km Easting • 4355.01 km Northing • Zone 17
Directions:	Travel North West on State Route 18 from West Union. At Deep Valley take Route 56 and then follow approximately 2 miles up Raymond Ridge Road (County Route 56/1) to the site.

Facility Description

Deep Valley Station is a natural gas compressor station used to compress gas for Dominion Transmission, Inc.'s pipeline system in West Virginia. The reciprocating engines at the facility receive natural gas from a valve on a pipeline and compress it to enable further transportation in the pipeline. The facility operates under SIC Code 4922.

This significant modification is to incorporate installation of 2 new emergency generators, permitted under 45CSR13 permit G60-C029, used for backup electrical power. This significant modification also addresses Dominion's CAM plan for the dehydration unit, 40 C.F.R. 63 subpart HH requirements for the dehydration unit and 40 C.F.R. 63 Subpart ZZZZ requirements for the engines (EN01 and EN02).

Since the permit is not due for renewal until November 2015, a reopening of the permit to incorporate the RICE MACT requirements, the CAM plan for the dehydration unit & the HH requirements would be required in accordance with 45CSR§30-6.6.a. To avoid the reopening, this significant modification includes the RICE MACT requirements, the CAM plan for the dehydration unit & HH.

Emissions Summary

The emission changes under this significant modification are as follows:

Pollutant	Annual Emission Change (tpy)
VOC	+0.4
CO	+0.2
NO _x	+0.02
SO ₂	+0.01
PM ₁₀	+0.01
Formaldehyde	+0.02

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 323.8 tons per year of Nitrogen Oxides (NO_x) and 150.9 tons per year of Volatile Organic Compounds (VOC). Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Dominion Transmission, Inc. is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR13	Construction Permit
	45CSR16	Standards of Performance for New Stationary Sources
	45CSR30	Operating permit requirement.
	40 C.F.R. Part 60, Subpart JJJJ	Stationary Spark Ignition Internal Combustion Engines NSPS
	40 C.F.R. Part 63, Subpart HH	National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities
	40 C.F.R. Part 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
	40 C.F.R. Part 64	Compliance Assurance Monitoring
State Only:	N/A	

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
G60-C029	February 10, 2011	N/A
R13-1104E	June 22, 2010	N/A

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B" which may be downloaded from DAQ's website.

Determinations and Justifications

1) Emission Units Table Section 1.1

- The table is updated to include two engines EG01 and EG02.
- Permittee requested to change the design capacity of DEHY01 from 0.639 mmscf/hr to 18 mmscf/day, as specified in R13-1104E.

2) Active R13, R14 and R19 permits

G60-C029 issued on February 10, 2011 is added.

3) Title V Boilerplate changes:

Condition 3.1.12 and 3.5.10 – According to Director's directive 45CSR42 (Greenhouse gas Emissions Rule) requirements are deleted.

Condition 3.3.1 – Boilerplate Subsection "d" was added to this condition.

4) Changes to Section 5.0:

40 C.F.R. 63 Subpart HH Area Source Requirements – The facility is a minor source of HAPs and has benzene emissions less than 1 ton per year. The GACT requirements of 40 C.F.R. 63 Subpart HH and associated requirements are included in permit conditions 5.1.11, 5.3.4 and 5.4.11.

Permittee requested the following change: Condition 5.5.1 requires submittal of a testing protocol for condition 5.3.3. Condition 5.3.3 is for sampling of the wet gas. This sampling is required to be performed in accordance with GPA 2166, and there is no alternative as this is referenced by both USEPA and GLYCalc. Permittee believes 5.5.1 is meant to reference condition 5.3.2 which is the flare compliance assessment testing, as is typical in many other Dominion Title V permits. This demonstration utilizes actual test methods (not sampling) and there are many test methods referenced in 5.3.2 that could be used. Permittee requested that condition 5.5.1 reference condition 5.3.2.

40 C.F.R. Part 64 – *Compliance Assurance Monitoring (CAM)*

The emission unit DEHY01 is a pollutant-specific emissions unit (PSEU) for the pollutant VOC. The PSEU meets all of the applicability criteria in 40 C.F.R. §§64.2(a) (1)-(3). That is, the PSEU is subject to an emission limit for VOC (condition 5.1.2); uses a control device (flare F1) to achieve compliance with the VOC emission limit; and has potential pre-control device emissions of VOC greater than 100 tpy.

Furthermore, the PSEU does not meet any of the exemptions given under 40 C.F.R. §64.2(b) for VOC. CAM applicability for VOC from DEHY01 was not addressed in the first or second renewal of this permit and is being included in this significant modification.

Condition 5.1.4.c. of the permit requires operation of the flare (Control Device ID# F1) with a flame present at all times whenever emissions may be vented to the flame. In order to demonstrate compliance with this requirement, the permit condition 5.2.1 requires monitoring of the presence or absence of a flare pilot flame using a thermocouple or other equivalent device. Therefore, continuous monitoring of the detector signal that indicates the presence of the pilot flame will provide reasonable assurance of ongoing compliance with the VOC limit. Conditions 5.2.1, 5.2.3 to 5.2.8, 5.4.9, 5.4.10 and 5.5.4 contain the CAM requirements.

Monitoring per the CAM Plan will be as follows:

		PSEU DEHY01
		Indicator No. 1
I.	Indicator	Flare (F1) operation
	Monitoring Approach	Continuous monitoring of the pilot flame using a computerized data acquisition, feedback, and control system to ensure the flare operates at all times the dehydration unit is in operation.
II	Indicator Range	Indicator provides data regarding presence or absence of flame.
	A. QIP threshold	The permittee has chosen not to propose a threshold at this time since it is not required for this permitting action by 40 C.F.R. §64.8(a). Although the threshold is not required, the language for a QIP as it relates to other applicable requirements is set forth as permit condition 5.2.7.
III	Performance Criteria	
	A. Data Representativeness	The detector will be installed, as specified by the manufacturer, to sight the most stable part of the flare flame at all firing rates. The installation will be performed by a trained, experienced representative of the manufacturer.
	B. Verification of Operational Status	All manufacturer's recommendations regarding periodic testing/checks for the proper installation and operations of the flame detecting device will be followed.
	C. QA/QC Practices and Criteria	For the device that detects the presence of a flame; calibration, maintenance, and operation will be conducted in accordance with manufacturer's specifications.
	D. Monitoring frequency	Continuous
	E. Data Collection Procedure	Continuous, alarmed signal is sent to the control panel and recorded in <i>Mhealth</i> , Dominion's computerized data acquisition, monitoring, and statistical analysis system.
	F. Averaging Period	There is no averaging period since the flare pilot flame is either present or absent.

The emissions of HAPs from DEHY01 are not subject to 40 CFR Part 64 because they are subject to 40 CFR Part 63, Subpart HH. Being subject to Subpart HH meets the exemption criterion at 40 C.F.R. §64.2(b)(1)(i) for the affected HAPs. Table 1 of Subpart HH lists the specific HAPs that are subject to Subpart HH. All of the HAPs that have limits in condition 5.1.2 of the permit are listed in Table 1 of Subpart HH. Therefore, all of the HAPs with limits in Title V condition 5.1.2, which are emitted from DEHY01, are not subject to 40 CFR Part 64.

5) CAM applicability for the generators EG01 and EG02 with control devices S1 & S2 (catalysts) -

CAM does not apply to generators because of 40 C.F.R. §64.2(b)(1)(i), which exempts emission limits or standards under Section 111 or 112 proposed after 11/15/1990. Subpart JJJJ was proposed after 11/15/1990 and limits emissions of NO_x, CO, & VOC. Those emissions are the pollutants for which the catalyst controls.

Since the generators EG01 and EG02 are new, CAM is addressed in this modification.

- 6) Section 6.0** - This section of the permit has been added for the emergency generators EG01 & EG02 (emission point ID's 002-01 and 002-02) and incorporates the requirements of 40 C.F.R. 63 Subpart ZZZZ applicable to the generators and requirements of 45CSR13 General Permit G60-C029 as an attachment to the Title V permit. According to 40 C.F.R. § 63.6590 (c), EG01 and EG02 meet the requirements of 40 C.F.R. 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. 60 Subpart JJJJ as spelled out in G60-C029. No further requirements apply for such engines under 40 C.F.R. 63 Subpart ZZZZ.

- 7) Section 7.0** – This section of the permit has been added for the reciprocating Ajax engines EN01 & EN02 and incorporates the requirements of 40 CFR 63, Subpart ZZZZ applicable to the engines.

40 CFR 63, Subpart ZZZZ RICE MACT Applicability – The two Ajax engines are existing spark-ignition (SI) two-stroke lean burn (2SLB) Reciprocating Engines/Integral Compressors that combust pipeline quality natural gas and are rated at 800 HP each.

Since, this facility is not a major source of HAPS, the 40 CFR 63, Subpart ZZZZ area source requirements apply.

Engines EN01 and EN02 are subject to the following sections of 40 C.F.R. Part 63 Subpart ZZZZ -

Compliance date is – October 19, 2013.

Emission Limitations: 40 C.F.R. §63.6603, Table 2d.

Operating Limitations: No Requirements.

Fuel Requirements: No Requirements.

Performance Tests: No Requirements.

Monitoring, Installation, Collection, Operation and Maintenance Requirements: 40 C.F.R. §63.6625 (e), (h) and (j).

Initial Compliance: No Requirements.

Continuous Compliance: 40 C.F.R. §§63.6605, 63.6640.

Notification Requirements: No Requirements.

Recordkeeping Requirements: 40 C.F.R. §63.6655 [except §§63.6655(c) & (f)].

Reporting Requirements: No Requirements.

General Provisions (40 CFR part 63) – 40 C.F.R. §63.6665, except per 40 C.F.R. §63.6645(a)(5), the following do not apply: §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h).

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

Greenhouse Gas Permitting - There have been no modifications that have triggered a PSD permit. Therefore, there are no applicable GHG requirements.

Request for Variances or Alternatives

None

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: June 6, 2012
Ending Date: July 6, 2012

All written comments should be addressed to the following individual and office:

U.K.Bachhawat
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

U.K.Bachhawat
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601 57th Street SE
Charleston, WV 25304
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Response to Comments (Statement of Basis)

None